

ORDINANCE NO. 1981-M-32

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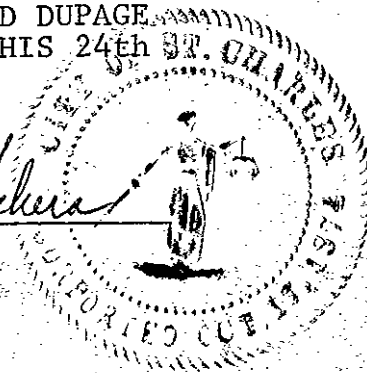
AN ORDINANCE ESTABLISHING TITLE 18  
ENTITLED "FLOOD DAMAGE PREVENTION,"  
OF THE ST. CHARLES MUNICIPAL CODE

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PASSED AND APPROVED BY THE  
MAYOR AND CITY COUNCIL OF  
THE CITY OF ST. CHARLES,  
KANE AND DUPAGE COUNTIES,  
ILLINOIS THIS 24th DAY OF  
AUGUST, 1981.

PUBLISHED IN PAMPHLET FORM BY  
THE AUTHORITY OF THE MAYOR AND  
THE CITY COUNCIL OF THE CITY OF  
ST. CHARLES, KANE AND DUPAGE  
COUNTIES, ILLINOIS THIS 24th  
DAY OF AUGUST, 1981.

*M. Joseph Scherer*  
CITY CLERK



ORDINANCE NO. 1981-M-32

AN ORDINANCE ESTABLISHING TITLE 18  
ENTITLED "FLOOD DAMAGE PREVENTION", OF THE  
ST. CHARLES MUNICIPAL CODE

REPORT TO
MINUTES <u>8-24-81</u>
PAGE _____

DATE OF PUBLICATION in  
NEWSPAPER pamphlet form

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF ST. CHARLES,  
KANE AND DuPAGE COUNTIES, ILLINOIS, as follows:

1. That Title 18, entitled "Flood Damage Prevention", of the  
St. Charles Municipal Code is hereby added as follows:

## TITLE 18

### FLOOD DAMAGE PREVENTION

#### CHAPTERS:

- 18.02 Purpose
- 18.04 Other Regulations
- 18.06 Definitions
- 18.08 Maps and Reference Marks
- 18.10 General Conditions
- 18.12 Variances
- 18.14 Non-Conforming Structures and Uses
- 18.16 Zoning Regulations
- 18.18 Open Storage of Floatable Materials
- 18.20 Open Storage of Other Materials
- 18.22 Open Storage of Hazardous Materials
- 18.24 Preliminary Plan Information for Subdivisions, Planned Unit Developments, and Other Improvements
- 18.26 Engineering Plan Information for Subdivisions, Planned Unit Developments, and Other Improvements
- 18.28 Subdivision and Planned Unit Development Design
- 18.30 Building Permits
- 18.32 Building Site
- 18.34 Building Design Criteria
- 18.36 Administration
- 18.38 Savings Clause
- 18.40 Penalty for Violation

#### 18.02 Purpose.

The purpose of this Title is to diminish threats to public health and safety caused by floodwaters; reduce economic losses to individuals and the community at large; protect, conserve, and promote the orderly development of land and water resources; make federally subsidized flood insurance available for property in the City of St. Charles; and lessen the burden on the taxpayer for flood control projects. To these ends, the provisions of this Title further regulate, guide, and control:

- A. The use, subdivision, layout, and improvement of lands located in floodplains.
- B. The excavating, filling, and grading of lots and other land parcels or areas located in floodplains and the storing of certain materials thereon.
- C. The location, construction, and elevation of buildings and other structures or parts and appurtenances thereof, and of sanitary and storm sewers and appurtenances, such as manholes, located in floodplains.

#### 18.04 Other Regulations.

Before starting any of the work regulated by this Title, an applicant shall comply with the requirements set forth in other applicable Titles with respect to the submission and approval of preliminary and final subdivision plans, improvement plans, building inspections, appeals and similar matters, along with those set forth in this Title and as may be required by Federal or State laws and the regulations of any department of the State of Illinois. Where provisions of this Title are more restrictive than other requirements, this Title shall apply.

Mobile Homes are not a permitted use under the St. Charles Municipal Code.

#### 18.06 Definitions.

For the purposes of this Title, the following definitions are adopted:

- a. AREA OF SPECIAL FLOOD HAZARD: The land which is subject to a one percent chance of flooding annually. This area may also be identified as that which is subject to the 100 year flood. The area is designated as zone A or A-1 through A-30 on the "Flood Insurance Rate Maps" provided by the Federal Insurance Administration.
- b. Base Flood: The flood having a one percent chance of being equalled or exceeded in any year. The base flood is also known as the 100 year flood and is designated on the "Flood Insurance Rate Maps."
- c. Base Flood Area: The land area subject to inundation by waters of the base flood.

- d. Base Flood Elevation: The highest water surface elevation of the base flood, as designated on the City's "Flood Insurance Rate Maps" and delineated on the flood profiles in the flood insurance study prepared on March 2, 1981.
- e. Compensatory Storage: An artificially excavated volume of storage within the base flood area used to balance the loss of natural flood storage capacity when artificial fill or structures are placed within the floodplain. The uncompensated loss of natural floodplain storage can increase off-site flood-water elevations and flows.
- f. Development: Any man-made change to real estate, including but not limited to construction of or substantial improvements to buildings or other structures, the placement of mobile homes, mining, dredging, filling grading, paving, excavation or drilling operations.
- g. Flood: The condition existing when the waters of any watercourse, pond, or depression temporarily rise to a height above their normal levels and overflow boundaries within which they are ordinarily contained. It also includes the unusual rapid accumulation or runoff of surface waters.
- h. Flood Frequency: A period of years, based on a statistical analysis, during which a flood of a stated magnitude may be expected to be equaled or exceeded.
- i. Flood Fringe: The higher portion of the floodplain, immediately adjacent to and on either side of the floodway, occupied by quiescent or slow-moving waters during floods.
- j. Flood Boundary and Floodway Map: An official map of the City, issued or approved by the Administrator of the Federal Insurance Administration, on which the floodway and the flood fringe areas have been designated.
- k. Flood Insurance Rate Map; An official map of the City issued or approved by the Administrator of the Federal Insurance Administration, on which both the areas of special flood hazards and the risk premium zones applicable to St. Charles are delineated. The effective date of "The Flood Insurance Rate Maps" is September 2, 1981.
- l. Flood Insurance Study (FIS): An examination and evaluation of hydrologic and hydraulic data sponsored by the Federal Insurance Administration to determine base flood flows, elevations, areas, and floodways. The FIS also determines flows, elevations, and areas of flood having lesser and greater frequencies of occurrence. Date of the study is March 2, 1981.
- m. Flood of Record: An actual historical flood event for which sufficient records are available to establish its extent. No uniform probability of occurrence is associated with floods of record. However, the probability of occurrence may be determined for the event at specific locations.

- n. Flood Profile: Graphical representations of the elevations of the water surface of the 100-year flood along the watercourses of the City, which are Ferson Creek, Fox River, 7th Ave. Creek, 7th Avenue Tributary, State Street Creek, and State Street Tributary.
- o. Flood Protection Elevation: The elevation to which uses regulated by this Ordinance are required to be elevated or floodproofed.
- p. Flood Return Period: Same as Flood Frequency.
- q. Floodplain: The special flood hazard lands adjoining a watercourse, whose surface elevation is lower than the base flood elevation, that are subject to periodic inundation during floods.
- r. Floodproofing: Modifications to structures made to reduce flood damages. These changes may be made to existing structures or incorporated in the design of new structures. In all instances, floodproofing must be watertight and must be adequate without the need for human intervention.
- s. Floodway: The channel of a watercourse and those portions of the adjoining floodplains which are required to carry and discharge the 100-year flood with no significant increase in the base flood elevation. SEE DIAGRAM 1.
- t. Floodway Encroachment Lines: The lateral boundaries of the floodway which separate it from the flood fringes.
- u. Freeboard: An increment of elevation added to the base flood elevation to provide a factor of safety for uncertainties in calculations, unknown localized conditions, wave actions, and unpredictable effects such as may be caused by ice or debris jams.
- v. Hydrostatic Uplift: The upward pressure exerted on floor slabs or an entire structure by standing water or ground water. Hydrostatic pressure may also be horizontal imposing forces on walls causing them to crack or fail.
- w. Mobile Home: A structure transportable in one or more sections, which is built on a permanent chassis and designed to be used with or without a permanent foundation when connected to the required utilities. It does not include recreational vehicles or travel trailers.
- x. Mobile Home Park: A parcel or contiguous parcels of land which has been so designated and improved that it contains two or more mobile lots available to the general public for sale or rent and the placement thereon of mobile homes for occupancy. It is not a permitted use in the City of St. Charles.
- y. One Hundred Year Flood: A flood magnitude with a one percent statistical chance of being equaled or exceeded during any year. A flood this large would be reached once during a 100-year period, on the average. However, the occurrence of such an event does not diminish the chance of its recurring again at any time.

- z. Planned Unit Development: Planned Unit Development is a unified development of one or more tracts of contiguous land in the single ownership of unified control and which includes two or more principal buildings or uses and where the specific requirements of a given zoning district may be modified if the application is processed under the Planned Unit Development procedure of the Zoning Ordinance codified in Title 17.
- aa. Risk Premium Rate Zones: Flood hazard areas designated according to the degree of flooding they would experience during the base flood. The symbols used to designate these zones are as follows:
- Zone symbol:
- A-----Area of special flood hazard without water surface elevations determined.
- Al-99-----Area of special flood hazard with water surface elevations determined.
- AH-----Area of special flood hazards having a level water surface (ponding) with water depths between one (1) and three (3) feet.
- AO-----Area of special flood hazards having a sloping water surface (sheet runoff) with water depths between one (1) and three (3) feet.
- VO-----Area of special flood hazards having shallow water depths and/or unpredictable flow paths between one (1) and three (3) feet with velocity.
- B-----Area of moderate flood hazards.
- C-----Area of minimal hazards.
- bb. Riverine: Relating to, formed by, or resembling a river (including tributaries), stream, creek, or brook.
- cc. Structure: A walled and roofed building, including a gas or liquid storage tank, that is principally above ground, as well as a mobile home.
- dd. Substantial Improvement: Any repair, reconstruction, or improvement of a structure, the cost of which equals or exceeds fifty percent (50%) of the market value of the structure either before the improvement or repair is started, or if the structure has been damaged, and is being restored, before the damage occurred. The term does not, however, include either: (i) any project for improvement of a structure to comply with existing state or local health, sanitary, or safety code specifications which are solely necessary to assure safe living conditions, or (ii) any alteration of a structure

or site documented as deserving preservation by the Illinois Department of Conservation or listed on the National Register of Historic Places.

- ee. Subdivision: Subdivision is a described tract of land which is to be or has been divided into two or more lots or parcels, with the exception of lots and blocks in recorded subdivisions, any of which resultant parcel is less than five acres in area for the purpose of transfer of ownership or building development, or, if a new street is involved, any division or a parcel of land and shall specifically include a planned unit development.
- ff. Watercourse: Any river, stream, creek, brook, branch or other drainageway in or into which stormwater runoff and floodwaters flow either regularly or intermittently.

18.08      Maps and Reference Marks.

- a. Official maps which depict the floodplains, floodways, floodway fringes, and floodway encroachment lines are available for inspection in the Engineering Offices of the City of St. Charles, are hereby indentified as parts of this Title, and are incorporated herein and identified as "Flood Boundary and Floodway Maps" and the "Flood Insurance Rate Maps". The "Flood Boundary and Floodway Maps" are dated September 2, 1981 and consist of three (3) panels. The "Flood Insurance Rate Maps" are dated September 2, 1981 and consist of three (3) panels.
- b. Flood profiles describing the expected elevation of floods along the center lines of the principal watercourses of this City are available for inspection in the Engineering Offices of the City of St. Charles, are identified as parts of this Title, and are incorporated herein and identified as "Flood Profiles" dated March 2, 1981, consisting of ten (10) sheets. In the event a conflict arises between the information depicted on the "Flood Boundary and Floodway Maps" and the "Flood Profiles", the data prescribed by the profiles will govern.
- c. The following reference marks as established by the U.S. Coast and Geodetic Survey or the U.S. Geological Survey shall hereafter be taken by engineers, surveyors, architects, and contractors when making topographical surveys and maps, and when setting grades and elevations of buildings, pavements, drainage facilities, and other structures or works publicly constructed or regulated by the City of St. Charles:

REFERENCE MARKS

Elevation Feet above MSL (NGVD)	<u>RM</u>	<u>Location</u>
684.73	1	A chiseled square on the southeast wingwall of a bridge over 7th Avenue Creek on Riverside Avenue.



Elevation Feet above MSL (NGVD)	<u>RM</u>	<u>Location</u>
686.66	2	A chiseled square on the northeast corner of a concrete ramp located on the east side of a footbridge over the Fox River just west of the intersection of Riverside Avenue 2nd Avenue, and Ohio Avenue.
720.96	3	A chiseled square on a concrete handrail of a bridge over 7th Avenue Creek on the south side of Indiana Avenue.
723.94	4	A chiseled square on a concrete handrail of a bridge over 7th Avenue Creek on the west side of 11th Avenue.
728.29	5	A chiseled square on a concrete headwall of a bridge over 7th Avenue Tributary Creek on the southeast side of the Chicago & Northwestern RR bridge.
698.32	6	A chiseled square on a concrete headwall of a bridge over State Street Creek on the southwest side of 4th Street.
715.96	7	A chiseled square on a concrete headwall of a bridge over State Street Creek on the west side of 9th Street.
698.98	8	A chiseled square on the north side of the pier base stone wall on the east side of the Fox River at the Chicago & Northwestern RR Bridge.
690.10	9	A chiseled square on the southeast corner of a concrete slab with a pump located on the north side of the end of a gravel drive on the east side of the Fox River at approximately River mile 61.6.
697.27	10	Top of a gaging pipe cap just east of the southeast corner of a bridge over Ferson Creek on Illinois Route 31.
719.60	11	A chiseled square on the west stone wall of the gateway to Wild Rose Farm on Crane Road.
733.91	12	A chiseled square on the northwest corner of a concrete guard rail of a bridge over Ferson Creek at Randall Road.

- d. The official maps described in this section shall be used as an aid in determining whether a specific parcel of land lies within the base flood area. The final decision, however, shall be based on the relation of the surveyed ground elevation and the base flood elevation. For the purposes of this Title, the base flood elevation applicable to a specific parcel of land, if not otherwise depicted by the official maps and profiles described above, shall be that elevation established for the adjoining stream or channel measured at right angles to the general direction of flow in that stream or channel. Maps are subject to change by appealing through the City of St. Charles to the Federal Insurance Administration. Base flood elevations in "A" zones should be calculated using the best available data and methods.

18.10     General Conditions:

- 18.10.010     This "Title" is not intended to reduce or eliminate existing flooding, nor is it intended to impose a complete prohibition of construction in base flood area. On the contrary these regulations are designed to guide and control development in such a manner as to lessen the damaging effects of floods on development proposed for the low-lying areas in St. Charles. It is the intention of this Title to provide protection in the base flood area as designated on the City's Federal Insurance Rate Maps against the high waters of the base flood.
- 18.10.020     In floodways which are designated on the "Flood Boundary and Floodway Maps", fill, encroachments, and new construction and substantial improvements of existing structures, which would result in any increase in flood heights, shall be prohibited. No permit will be issued for floodway development unless the applicant has obtained a permit from the Illinois Department of Transportation, Division of Water Resources, issued pursuant to Illinois Revised Statutes Chapter 19, Section 70 or has obtained a "waiver of permit required" from the Division of Water Resources, and provided further all other applicable provisions of the St. Charles Municipal Code are satisfied.
- 18.10.030     In flood fringes areas which designated on the "Flood Boundary and Floodway Maps", construction, filling or use of those low lying lands may be permitted under the conditions specified in this Title.
- 18.10.040     Whenever any portion of a floodplain is authorized for use, the volume of space which will be occupied by the authorized fill or structure below the base flood elevation shall be compensated for and balanced by at least an equal volume of excavation taken from below the base flood elevation. In the case of streams or watercourses, such excavation shall be made opposite or immediately adjacent to the areas so filled or occupied. All such excavations should be constructed to drain freely and openly to the watercourse.
- 18.10.050     All structures located in base flood areas shall be required to be so sited on fill or be otherwise designed and constructed

so as to include a freeboard of at least one foot between the lowest habitable floor and the base flood elevation, except as provided for in Section 17.44.180 of this Title.

18.10.060      Watercourse Alteration: In riverine situations, the City Council shall notify adjacent communities, the Illinois Division of Water Resources and the Federal Insurance Administration prior to any alteration or relocation of a watercourse within the municipality's jurisdiction by any person or agencies. The City Council shall assure that the flood carrying capacity with the altered or re-located portion of any watercourse be maintained.

18.12      Variances.

The Board of Zoning appeals may grant variances from the regulatory standards of this Title in accordance with following requirements:

18.12.010      1. Application

An application for a variation may be made by any person, firm or corporation, or by any office, department, board, bureau or commission of the City of St. Charles.

An application for a variation is filed with the Building Commissioner. An application for a variation shall be on a form provided by the Building Commissioner and shall contain all information required on such form including the following:

- a. Legal description of property for which a variation is requested;
- b. The requested variation identified;
- c. The reasons which applicant relies upon as justifying the requested variation;
- d. An 8½" X 11" sketch of the property showing all lot lines, existing and proposed structures and adjoining streets or uses and the distances between said structures and the lot lines.

2. Notice of Hearing

No variation shall be made by the Board of Zoning Appeals except after a public hearing before the Board of Zoning Appeals, of which there shall be a notice of the time and place of the hearing published at least once, no more than 30 days nor less than 15 days before the hearing, in one or more newspapers published in the City of St. Charles, Illinois.

3. Hearing

The Board of Zoning Appeals shall hold a public hearing at which evidence in support of the variation must be presented by or on behalf of the applicant and any

evidence presented by interested parties shall be heard.

On the basis of evidence presented, the Board of Zoning Appeals shall record their findings of fact, their decision, the vote of the members and the reasons for granting or denying the variation.

- 18.12.020 No variance shall be granted unless the applicant for the variance can demonstrate that:
1. An exceptional economic hardship would result without the variance.
  2. The relief granted is the minimum necessary.
  3. There will be no additional threat to public safety or creation of a nuisance.
  4. No additional public expense will result.
  5. The property in question cannot yield a reasonable return if permitted to be used only under the condition allowed by the regulations governing the district in which it is located;
  6. The plight of the owner is due to unique circumstances;
  7. The variation, if granted, will not alter the essential character of the locality.
- 18.12.030 In addition to the requirements above, a variance from the requirements of this Title that would result in a structure not being protected to the elevation of the base flood shall also meet the following requirements:
1. The structure is to be located on a lot of one-half acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level;
  2. The Board of Zoning Appeals notifies the applicant in writing:
    - a. That the variance will result in increased premium rates for flood insurance up to amounts as high as \$25 for \$100 of insurance coverage;
    - b. That such construction below the base flood level will increase the risks to life and property and that the applicant proceeds with knowledge of these risks;
    - c. That if the variance is issued, it is contingent upon the applicant obtaining approval from other agencies having jurisdiction, when the variance violates the requirements of such agencies.

18.12.040 In addition to the requirements above, a variance from the requirements of this Title that would significantly impede or increase the flow and passage of floodwaters shall also meet the following requirements, except that no variance will be granted that would result in an increased flood height greater than .1 feet within the designated regulatory floodway:

1. the resulting increase in the base flood elevation will not affect any existing structures or utilities;
2. the owners of the properties affected by the increased base flood elevation are compensated for the resulting effect on property values and have given their written agreement to granting the variance;
3. the resulting increased flood elevations will not affect any flood prevention structures .

18.14 Non-Conforming structures and Uses

18.14.010 Non-conforming structures under this Title may remain in use subject to the following regulations:

1. Alterations: A non-conforming structure in the floodway shall not be enlarged, replaced or structurally altered. A non-conforming structure in the floodway which is accidentally damaged may be restored unless the damage exceeds fifty (50%) of its replacement value in which case it must thereafter conform to to this Title. The City Building Commissioner shall determine the amount of damage. A non-conforming structure in the flood fringe which is accidentally damaged may be restored if a new foundation is not needed and the structure is not enlarged.
2. Building Permit Issued prior to Adoption or Amendment of the Zoning Ordinance: Proposed structures for which building permits have been issued prior to their designation as non-conforming by adoption or amendment of Title 17 of St. Charles Municipal Code may be completed and used as originally intended subject to the non-conforming provisions of this Title.

18.14.020 Non-Conforming uses under this Title may be continued subject to the following regulations:

1. Extensions: A non-conforming use shall not be expanded or moved to occupy any portion of the premises, either land or structure, which was not originally occupied by the non-conforming use.
2. Discontinuance: Whenever a non-conforming use of any premises has been discontinued for a period of one hundred and eighty (180) days, it may not be re-

established unless notification of intent to re-establish is given to the City of St. Charles within six (6) months at which time a two year extension may be given.

3. Changes: A non-conforming use shall not be changed to another or different non-conforming use.

18.16      Zoning Regulations:

18.16.010      In the floodways which are identified on the "Flood Boundary and Floodway Maps", only those uses and structures will be permitted which will not impede or increase the flow and passage of flood waters. All such uses and structures shall meet applicable zoning requirements for the area.

18.16.020      Development in and use or filling of flood fringe areas as identified on the "Flood Boundary and Floodway Maps" will be permitted if protection is provided against the base flood by proper elevation, compensatory storage, and other provisions of this Title. No use will be permitted which will adversely affect the capacity of channels, the floodway or drainage facilities of systems. All uses and structures shall meet applicable zoning requirements for the area.

18.18      Open Storage of Floatable Materials:

Logs, wastes, lumber, lumber products, and other floatable materials or containers shall not be placed, displayed, or stored in the floodway but may be stored in flood fringes providing it is fenced so that floatable material will not be carried downstream.

18.20      Open Storage of Other Materials:

The open storage of display on a flood fringe of inoperable motor vehicles and similar nonmovable machinery and other non-floatable materials and products, where permitted by the regulations of the zoning district applicable to such land, shall be considered the same as the placement of fill on the floodplain and shall be subject to the regulations of this Title relating to compensatory storage.

18.22      Open Storage of Hazardous Materials:

The open storage of materials anywhere in the base flood area which are flammable, explosive, toxic, or which could be otherwise injurious to human, animal, or plant life is prohibited.

18.24      Preliminary Plan Information For Subdivisions, Planned Unit Developments and Other Improvements:

Accompanying the preliminary plans of each proposed subdivision or planned unit development which involves any portions of a base flood area as designated by the "Flood Boundary and Floodway Maps" and the "Flood Insurance Rate Maps" of the City of St. Charles or accompanying the application for a

building permit for an individual lot which involves any portion of the base flood area there shall be furnished the following information; which shall be certified by a registered Professional Engineer.

- A. A topographic map with two foot contour intervals of the subject land and adjoining land whose topography may affect the layout or drainage of the subject land showing:
  1. The location of streams and other floodwater run-off channels, their normal channels, the extent of their floodplains at the established high water elevations, all properly identified.
  2. The normal shoreline of lakes, ponds, swamps, and detention basins, their floodplains and lines of inflow and outflow, if any.
  3. The location of farm drains and their inlets and outlets.
  4. Storm and sanitary sewers and any storm sewer outfalls.
  5. Septic tank systems and outlets, if any.
  6. Location of existing structures that will remain.
  7. 100 year flood elevation and limits, including floodway, for that portion of the development which is in the base flood area as identified on the "Flood Boundary and Floodway Maps".

18.26

Engineering Plan Information For Subdivision, Planned Unit Developments, and Other Improvements.

Engineering plans for each proposed subdivision or planned unit development which involves any portion of a base flood area as designated by the "Flood Insurance Rate Maps" and the "Flood Boundary and Floodway Maps" of the City of St. Charles shall include profile drawings of each stream channel, pond, and basin showing the elevations of the following which shall be certified to by a Registered Professional Engineer:

1. The stream bed.
2. Channel banks, if any.
3. Waterway openings of existing culverts and bridges within and near the tract.
4. Size and elevation of sewer and drain outlets into the stream channel or basin.
5. The base flood elevations as delineated on the "Flood Boundary and Floodway Maps".

18.28                    Subdivision and Planned Unit Development Design.

18.28.010            General

All proposed subdivisions and planned unit developments within the base flood area shall be reviewed to assure that the proposed developments are consistent with the need to minimize flood damage, that all public utilities and facilities (such as sewer, gas, electrical and water systems) are located and constructed to minimize or eliminate flood damage and that adequate drainage is provided.

Street, blocks, depths of lots, parks and other public grounds shall be located and laid out in such a manner as to preserve and utilize natural streams, channels, and detention basins.

18.28.020            Channel Straightening:

Sharply meandering streams or channels may be partially straightened and minor changes made in other channels, subject to the approval of the City Engineer, provided the hydraulic capacity of the floodway is maintained, the volume of floodwater storage outside the floodway is not reduced, provision is made to stabilize the banks of the modified channel to control erosion, and additional permits for this work that are required by the Illinois Department of Transportation and the Corps of Engineers are obtained.

18.28.030            Lots in Base Flood Area:

Land lying wholly or partially in the flood fringe area as designated on the "Flood Boundary and Floodway Maps" may be laid out and platted as building lots or parcels, provided a building site not lower than the base flood elevation plus one foot exists on the high part of the lot or parcel where a structure is to exist, or will be built up during execution of the subdivision improvement plan through general excavation or filling, or can be provided with excavation taken from within the area of the lot or parcel.

18.28.040            Compensatory Storage:

Such filling as may be required or permitted by this Title for a building site, or as may otherwise be done in a floodplain shall be compensated for and balanced by at least an equal volume of excavation taken from below the high-water elevation. In the case of streams and channels, such excavation shall be made opposite or immediately adjacent to the areas so filled or occupied and shall be constructed to drain freely and openly to the watercourse.

18.28.050            Water Supply and Sanitary Sewer Systems:

The design of water supply and sanitary sewer systems to be located in the floodplain shall minimize or eliminate the discharges from the system into the floodwaters and the



infiltration of floodwaters in the system. All sanitary sewer manholes must have a rim elevation of a minimum of one foot above the base flood elevation or be provided with a locking, watertight manhole cover. On site waste disposal systems shall be located so as to avoid impairment of them or contamination from them during or subsequent to flooding.

18.28.060 Streets and Roads:

When failure or interruption of service of streets or roads would endanger public health or safety, streets and roads shall be protected to the base flood elevation. All Arterial and Collector streets shall be constructed such that the Crown is not lower than the base flood elevation.

18.28.070 Drainways:

Whenever the plans call for the passage and/or storage of surface runoff or excess stormwater on lots, the grading of all such lots shall be prescribed and established as part of the subdivision plat. The areas so designated for the passage and/or storage of such waters shall not be obstructed. The limits of the high water levels resulting from the passage and/or storage of surface runoff or excess stormwater on lots shall be recorded on the plat of record and shall be covered by an easement.

18.30 Development Permits:

18.30.010' Development permits are required for all proposed construction, substantial improvements, or other development within floodplain areas. The proposed construction shall be:

1. Designed and anchored to prevent flotation, collapse or lateral movement of the structure.
2. Constructed with materials and utility equipment resistant to flood damage.
3. Constructed by methods and practices that minimize flood damage.

18.30.020 At the time of issuing a Development permit, the following information will be noted and recorded by the City:

1. Elevation of the lowest floor, including basement, and the elevation of the lowest habitable floor.
2. Where the elevation of the lowest floor is below grade on one or more sides, the elevation of the floor immediately above.
3. Where a structure has been floodproofed, the elevation to which the structure was floodproofed.

18.32 Building Site:

Each main building or structure that is built on fill shall

be provided with a site, area, or yard that is not lower than the established base flood elevation plus (one) 1 foot and which shall extend beyond the outside walls for a distance of at least five (5) feet. The finished grade or surface of this area beyond the aforesaid five (5) foot distance shall be graded or surfaced so as to drain away from the walls over a distance of not less than five (5) additional feet.

18.34      Building Design Criteria:

The following general design criteria shall apply to all new construction and substantial improvements which may be authorized in floodplains:

18.34.010      Residential Structures:

The lowest floor, including the basement, of residential structures must be at an elevation not less than that of the base flood elevation plus one (1) foot.

18.34.020      Non-Residential Structures:

The lowest floor, including the basement, subterranean utility room, and elevator shaft, of non-residential structures must be elevated or flood proofed to an elevation not less than that of the base flood elevation plus one (1) foot.

18.34.030      Foundations:

The walls, foundations, and other features which may be authorized for construction or installation at any elevation below that of the base flood elevation plus one (1) foot must be designed to resist appropriate hydrostatic pressures.

18.34.040      Anchoring:

All authorized structures, including underground and above-ground tanks, shall be firmly anchored to prevent flotation. Anchoring materials should be rust resistant.

18.34.050      Service Facilities:

To the maximum extent feasible, all service facilities, such as electrical and heating equipment, shall be installed, constructed, or otherwise protected so as to remain operational should floodwaters reach the base flood elevation plus one (1) foot. Water supply and wastewater collection and treatment systems shall be designed and constructed so as to prevent the entrance of flood waters.

18.34.060      Floodproofing:

Where the lowest floor, including basement, subterranean utility room, or elevator shaft is below the base flood elevation plus one (1) foot, the structures, with the attendant utility and sanitary facilities, shall be flood-proofed to a level of one (1) foot above the base flood elevation.

Where floodproofing is required, a registered professional engineer or structural engineer shall certify that the floodproofing methods employed are adequate to withstand the floor depths, pressures, velocities, impact and uplift forces and other factors associated with the base flood.

Floodproofing will only be allowed on non-residential structures.

18.36      Administration:

The administration of this Title shall be the responsibility of the Building Commissioner.

18.38      Savings Clauses:

18.38.010      Separability:

If any section, clause, provision, or portion of this Title is adjudged unconstitutional or invalid by a court of competent jurisdiction, the remainder of this Title shall not be affected thereby.

18.38.020      Abrogation and Greater Restrictions:

It is not intended by this Title to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this Title imposes greater restrictions, the provision of this Title shall prevail.

18.38.030      Disclaimer of Liability:

The degree of flood protection required by this Title is considered reasonable for regulatory purposes and is based on historical records, engineering, and scientific methods of study. Larger floods may occur or flood heights may be increased by man-made or natural causes. This Title does not imply that areas outside the prescribed floodplain boundaries or land uses permitted within such floodplains will be free from flooding or flood damages. This Title shall not create liability on the part of the City of St. Charles or any officer or employee thereof for any flood damages which may result from reliance on this Title or on any administrative decision made thereunder.

18.40      Penalty For Violation - Enforcement Authority:

Any person, firm, or corporation, who violates, disobeys, omits, neglects or refuses to comply with, or who resists the enforcement of any of the provision of this Title, shall upon conviction, be fined not more than two hundred dollars for each offense. Each day that a violation is permitted to exist shall constitute a separate offense. The Building Commissioner is designated and authorized to enforce this Title.

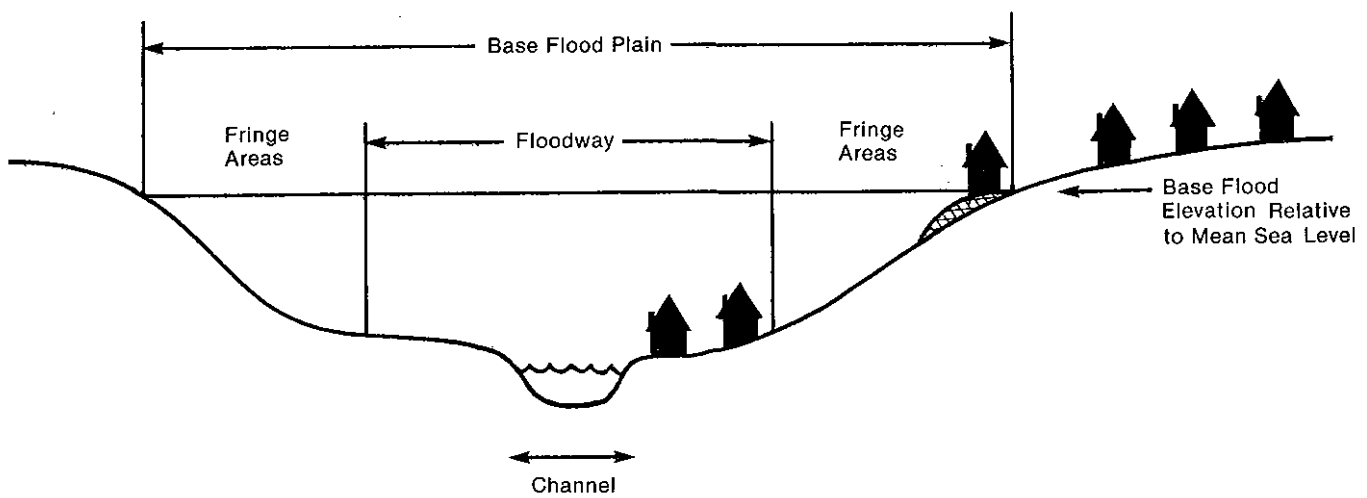
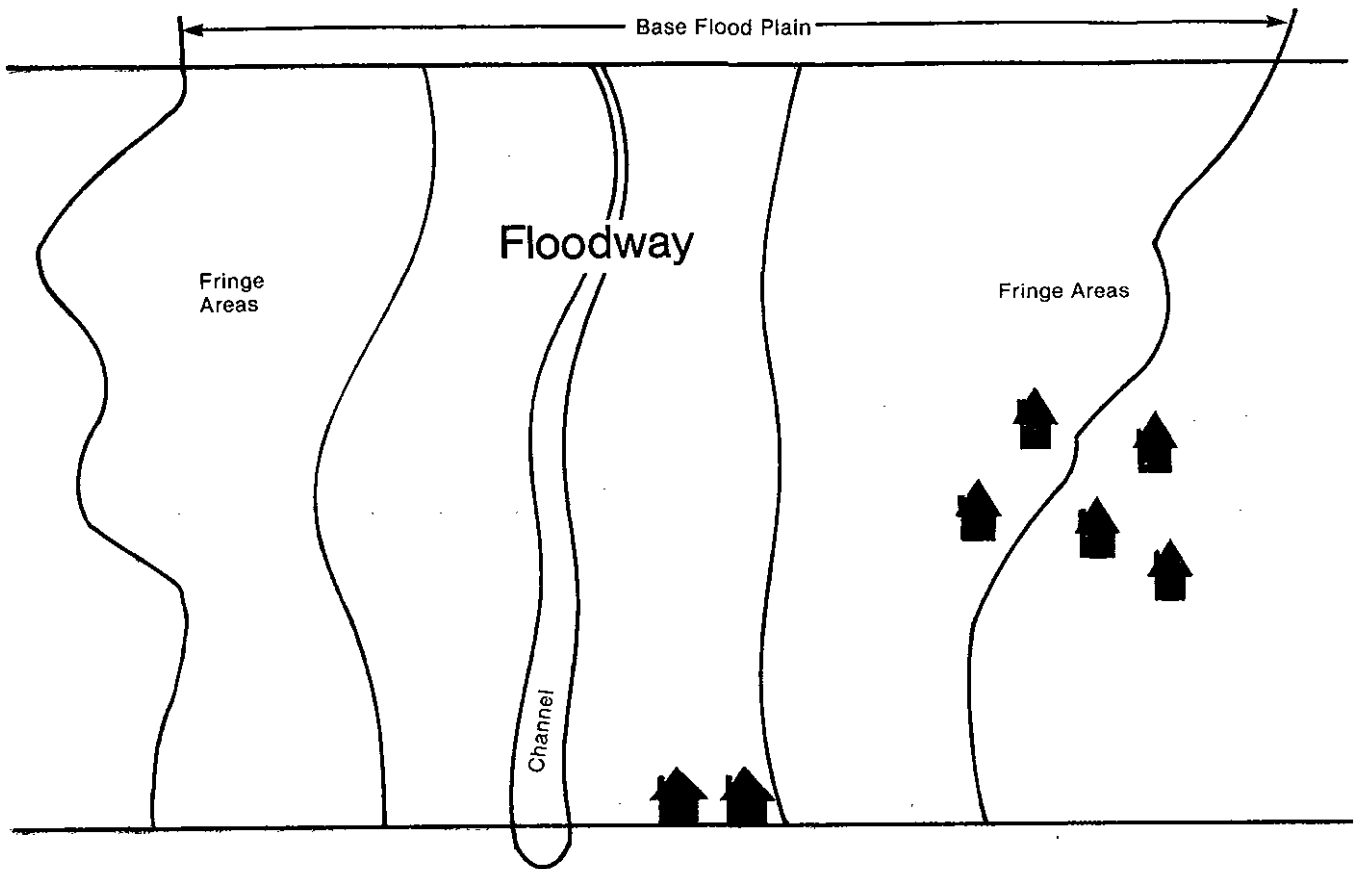


Diagram 1. Floodway and Fringe Areas.

### III. Planning Considerations in the Floodway

Certain kinds of development can be safely allowed within the floodway limits. This section describes some of these situations. It is assumed that these developments can occur in such a way that they will not cause an increase in base flood elevations.

Community officials should be concerned with three potential flood hazards in a floodway –

1. the hazard to the development itself,
2. the increased hazard which the development may cause to other properties by increasing flood elevations or velocities, and
3. the risk to stranded individuals in isolated structures surrounded by flood waters, and the risk to the rescue workers.

For example, a mobile home in a floodway is likely to be totally demolished, risking the lives of its inhabitants. Aside from the danger to the mobile home and its inhabitants, experience has shown that the mobile home will float into other homes or become wedged in a bridge opening, which could increase flood heights. Also, rescue workers will be endangered trying to rescue the mobile home's occupants before the mobile home floats away.

Because of these hazards, community officials should carefully consider all of the possible dangers created by a proposed floodway development. In most cases, a review will indicate that the benefits of allowing development in the floodway are outweighed by the costs of increased future flood damage and increased hazards to life.

FEMA floodway regulations are the minimum level of regulation for participation in the National Flood Insurance Program and are most concerned with the increased damage potential to other properties caused by a development.

Section 1910.3(d) (3) states that a community must –

*"Prohibit encroachments . . . within the adopted regulatory floodway that would result in any increase in flood levels within the community during the occurrence of the base flood discharge";*

Section 1910.3(d) (4) additionally requires a community to –

*"Prohibit the placement of any mobile homes, except in an existing mobile home park or mobile home subdivision, within the adopted regulatory floodway."*

These regulations can be thought of as minimum requirements for floodway development, based upon the need to reduce flood losses to an economically acceptable level. Most communities will wish to have a higher standard for floodway development, because of their concern for the potential damage to the proposed structure and the increased hazard to life, even if flood heights are not increased. A FEMA Regional Specialist can assist a community in determining the need for additional safety standards in the flood plain ordinance.

For example, if a structure is demolished (by a flood, fire or other hazard), it is apparent that it could be rebuilt without increasing the base flood elevations originally determined in the Flood Insurance Study. This is true because the obstruction caused by the original structure was considered in calculating the floodway. Of course, the rebuilt structure would have to be protected to the base flood elevation. The structure would probably have to be on pilings or columns since fill would cause a greater obstruction than was caused by the original structure.\* This type of construction in the floodway is technically permissible. However, the

community may wish to prohibit it, based on possible erosion hazards to the foundation and the possible isolation of individuals in the structure during a flood. Individuals in structures surrounded by flood waters endanger rescue officials as well as themselves. There is an additional reason not to replace structures in the floodway – the absence of these structures will normally reduce the flood hazard for other structures in the flood plain. For these reasons, many States and communities exceed Program requirements and prohibit the reconstruction of damaged structures in the floodway.

Certain uses are normally acceptable within floodway areas. For example, the following uses may be ideal floodway uses, assuming they do not increase base flood elevations, and provided they can sustain flood damage without economically ruining the property owner.\*\*

1. Agricultural uses.
  2. Uses incidental to industrial-commercial structures, such as loading areas, parking areas, airport landing strips (except in flash flood areas).
  3. Private and public recreational uses, such as golf courses, driving ranges, archery ranges, picnic grounds, boat launching ramps, swimming areas, wildlife and nature preserves, fish hatcheries, shooting preserves, target ranges, hunting and fishing areas, hiking and horseback riding trails.
  4. Uses incidental to residential structures, such as lawns, gardens, parking areas and play areas.
- Other uses may be acceptable provided the permit official can determine that no increase in flood heights will result (See Section IV. C). This task of local administration of the floodway requirement will be discussed in the next section.

\*This is true because the sides of the fill must be sloped to achieve stability

\*\*Many of the uses can be damaged by flooding. However the damages will be less than if the area had been fully developed

2. That Title 17, entitled "Zoning", Chapter 17.02, Section 17.02.140, entitled "Floodplain Area", of the St. Charles Municipal Code be and is hereby deleted and the following substituted therefor:

"Any building, structure or use established after  
August 17, 1981, shall comply with the provisions of Title 18  
entitled Flood Damage Prevention".

3. That Title 17, entitled "Zoning", Chapter 17.42, entitled "Administration" Section 17.42.080, "Planned Unit Developments", Subsection G, "Standards", is hereby amended by adding the following paragraph:

"10. All planned unit developments shall comply with  
the provisions of Title 18, entitled "Flood  
Damage Prevention"

4. That Title 16, entitled "Subdivisions and Land Improvements", Chapter 16.16 entitled "Preliminary Plan" Section 16.16.010 "Requirements generally" be and is hereby amended by adding the following to the last sentence: "and required materials under Title 18".

5. That Title 16, entitled "Subdivisions and Land Improvements", Chapter 16.20 entitled "Engineering Plan" Section 16.20.010 "Requirements generally" be and is hereby amended by adding the following to the last sentence: "and required materials under Title 18".

6. That Title 15 "Building and Construction", Chapter 15.04 "Building Code" Section 15.04.105 "Flood Damage Prevention".  
be and is hereby added as follows:

"15.04.105 Flood Damage Prevention

The requirements under Title 18 "Flood Damage Prevention"

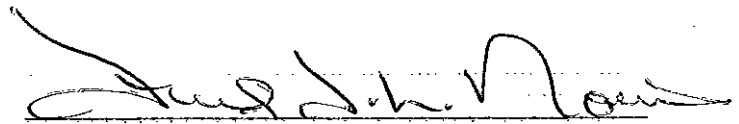
shall be followed in connection with all proposed construction, substantial improvements, or other development within flood plain areas".

7. That this ordinance shall be in full force and effect from and after its approval and publication in pamphlet form which publication in pamphlet form is hereby authorized.

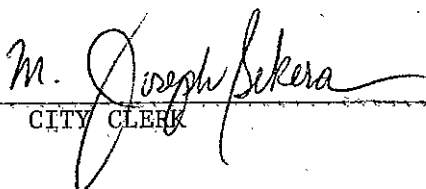
PRESENTED to the City Council of the City of St. Charles, Illinois,  
this 24th day of August, 1981.

PASSED by the City Council of the City of St. Charles, Illinois,  
this 24th day of August, 1981.

APPROVED by the Mayor of the City of St. Charles, Illinois,  
this 24th day of August, 1981.

  
MAYOR

ATTEST;

  
CITY CLERK

COUNCIL VOTE:  
Ayes: 9  
Nays: 0  
Absent: 1




STATE OF ILLINOIS                    )  
COUNTIES OF KANE AND DUPAGE       )  
CITY OF ST. CHARLES                )       SS.

This is to certify that the foregoing is a true and correct  
copy of Ordinance No. 1981-M-32 entitled AN ORDINANCE ESTABLISHING  
TITLE 18 ENTITLED "FLOOD DAMAGE PREVENTION", OF THE ST. CHARLES  
MUNICIPAL CODE

passed by the City Council of the City of St. Charles on the 24th  
day of August, 19 81 A.D., as morefully appears from the  
records and files of said City in my custody.

Given under my hand and the official seal of said City of  
St. Charles, this 26th day of August, 19 81 A.D.

  
\_\_\_\_\_  
M. Joseph Sekera, City Clerk